



**US Army Corps
of Engineers®
Nashville District**

Old Hickory Lake *Lake Casts*



Fall/Winter
2010



LANDSCAPING FOR A HEALTHY LAKE

Many lakeside property owners buy their properties to enjoy nature and lakeside living but then unknowingly disrupt nature's balance by removing natural vegetation. In order to protect the water quality of our lakes, we need to protect natural habitat.

Habitat reduction is the one of the largest stressors of water quality. Increased development removes vegetation and increases surface runoff from roofs, driveways, and other hard surfaces that prevent rain from soaking in. Because the water cannot be absorbed, it flows directly into the lake, carrying the sediments and pollutants with it. These sediments and pollutants can upset the delicate balance of a lake's health. Excess nutrients, especially phosphorous, can speed up the growth of algal blooms and microorganisms. By making a few small changes in land use, lakeside homeowners could significantly improve lake health.

Increasing plant buffer zones can help filter runoff, stabilize the shoreline, and provide wildlife habitat. Shoreline plants aid in slowing surface water runoff and encourage sediments and contaminants to settle before entering the lake. Root growth and plant residue support soil structure, which encourages shoreline stabilization. Overhanging tree limbs and bushes provide shade to keep the water cool. Pathways through these buffer zones should remain small to minimize shoreline impacts. By increasing buffer zones, you will also decrease lawn size, requiring

less time and energy for lawn maintenance.

When increasing these buffer zones, remember to plant native species. They require very low maintenance with less watering and fewer chemicals needed. They provide food, shelter, and cover for songbirds and great habitat for other forms of wildlife. Often, native plants are more effective than other shoreline stabilization measures and are more resistant to diseases than exotic species. Visit <http://www.plantnative.org/rpl-kytn.htm> to find some recommendations for native plant species.

Lakes are very delicate and complex systems that interact with chemical, physical, and biological forces. For lake-side homeowners, a small change in awareness can provide a very different relationship with their environment and can help protect a valuable resource within a growing lake community.

BURNING OF DEBRIS ON PUBLIC PROPERTY

As a reminder, open burning is prohibited on public property because it may interfere with the attainment or maintenance of the air quality standards required by the state of Tennessee. However, the burning of driftwood and storm-damaged vegetation on public lands may be approved where allowed by local regulations. Specific location(s) for burning must be approved by the Resource Manager, and burning must be in accordance with all state, county, and local regulations. All burn areas are to be reseeded to reestablish vegetation on the affected area.

The Tennessee Division of Forestry requires that you obtain a burn permit for wildfire prevention between October 15 and May 15. These permits are free and can usually be obtained over the phone. The Tennessee Department of Environment and Conservation lists the following as materials that are strictly prohibited from open burning: tires, rubber products, Styrofoam, vinyl siding, shingles, plastics, roofing materials, and any asbestos containing materials; however, it is important to remember that even household trash can emit some chemicals and is not permitted to be burned on public property.

ENCROACHMENTS ON PUBLIC PROPERTY

We would like to remind you that it is the responsibility of every private owner to know the exact limits of his or her property. This is true whether it's the line between two subdivision lots or between private and public land. The surest way to find your property lines is to have a licensed surveyor perform the proper deed research and set markers. With this knowledge you can make informed decisions about the location of the structures and residential amenities on your property.

The public lands around the lake are dedicated to the optimal use of the general public. Private exclusive uses and activities not specifically authorized in accordance with the Old Hickory Lake Shoreline Management Plan (SMP) are prohibited and will not be allowed to remain. Private fences, patios, planters, pools, driveways, porches, decks, gardens, ramps, sheds, dog houses/pens, graveled areas, sand beaches, and most other structures or alterations of terrain are not allowed on public property (see Old Hickory Lake's Shoreline Management Plan, Paragraph No 21: <http://www.lrn.usace.army.mil/op/old/rec/>).



OLD HICKORY LAKE WATER QUALITY

Does water quality really matter?
The answer is obviously, YES. A

clean lake is much more suitable for recreational activities and a thriving population of wildlife. Old Hickory Lake not only provides recreational opportunities to millions of people each year, but it also provides vital habitat to fish, wildlife and plants. Despite its murky appearance, studies have shown that Old Hickory Lake is one of the cleanest lakes in Tennessee.

Most people perceive water quality to be the clearness of water, but there is much more. It is the physical, chemical, and biological characteristics of water. Water quality is affected by the entire watershed. The Old Hickory Lake Watershed is approximately 983 square miles and includes portions of six Tennessee counties.

Non-point source pollution is the leading cause of water quality problems. Non-point source pollution is caused by rainfall and melted snow flowing over and through the watershed. As the runoff flows over the land, it picks up pollutants and sediment and carries it into streams which then drain into the lake. Think about a parking lot or your driveway - all the oil, chemicals and other pollutants are considered non-point source pollution.

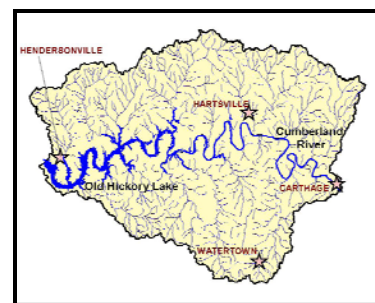
Old Hickory Lake is affected by pollutants; however, the murkiness of the water is due to unsettled sediment carried by runoff and erosion, not pollution or bacteria. On average, water takes only 11 days to pass through Old Hickory Lake, which not only keeps fresh water coming in, but carries any undetected pollutants out.

The following is a list of some ways you can help further improve the overall water quality of Old Hickory Lake:

- Control soil erosion by planting

trees, shrubs, and grasses.

- Apply bank stabilization measures if you live on the lake and have an erosion problem.
- Apply lawn and garden fertilizers sparingly.
- Properly dispose of oil, chemicals, and other hazardous wastes.
- Keep litter, leaves, animal wastes, and other debris out of ditches and streams draining into the lake.



Old Hickory Lake Watershed

OLD HICKORY HOME FOR THE GRAY BAT

Very few places have the kind of habitat the gray bat requires; luckily for us, Old Hickory Lake is one of them. The gray bat is an endangered species, and is one of the 15 species of bats found in Tennessee. Gray bats are found primarily in the southeastern United States; they require caves which are near a source of water while keeping a certain temperature and humidity.

The diet of a gray bat consists mainly of mayflies, but the bats will eat a variety of other insects we consider pests. Each night the bats will consume close to their own body weight in insects. Multiply that by hundreds of thousands of bats, and it becomes apparent the important role that bats have in controlling insects.

The gray bat is considered endangered, but their numbers are

beginning to grow with increased awareness of protecting these creatures.

Because there are only a handful of caves that the bats will live in, it is very important that these caves are protected from human disturbances. Because of their close proximity to water, the caves are also at risk for flooding.

Although the gray bat population is on the upswing, a new and devastating threat has appeared in recent years - White Nose Syndrome (WNS). WNS is not fatal; however, it depletes the bats' fat reserves and causes dehydration. When a bat wakes up in January from hibernating to find food, it will have a hard time finding insects to dine on and therefore may die of starvation. Recently, WNS has been confirmed in Tennessee. So far, WNS has not been shown to have any effect on humans. Bats that have WNS will have a powdery white fungus on their nose and wings. Bats should never be touched by a person who has not been vaccinated for rabies. However, if you find a bat dead or alive that shows signs of WNS, please contact TWRA (1-800-624-7406) immediately.



WATER SAFETY NEWS

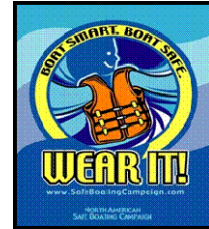
Understanding the importance of water safety and developing simple safety habits could mean the difference between life and death for a family member, friend, or even yourself. The staff at Old Hickory is committed to providing programs that educate lake users about the

importance of water safety. Each year Park Rangers present several "water safety" related events, and this year was no different. From June 16 - July 14 over 100 Boy Scout Troop Leaders from all over Tennessee and southern Kentucky participated in a water safety training course at Camp Boxwell Scout Reservation in Lebanon, Tennessee. Each Wednesday troop leaders assembled for an hour in the camp's High Adventure Building to learn general information about Old Hickory Lake as well as participate in several hands-on activities that would be helpful in teaching general water safety tips to their scout troops. Some important water safety tips the troop leaders learned during the training are:

- Learn to swim. The best way to stay safe in or near water is to learn to swim and know your physical limits.
- Never swim alone. Parents and guardians should always keep a close eye on their children. It only takes a few seconds for a child to wander off and less than 30 seconds for a child to drown.
- Swim in designated swimming areas only and never dive into lakes or rivers. All too often, hidden dangers lurk beneath the surface of the water, including rock outcrops or shallow water.
- Take a safe boating course.
- Check your boat for all required safety equipment.
- Never overload your boat
- Leave your alcohol behind. Work to increase your safety, not increase your risks!
- Check the weather forecast.
- File a float plan with a family member or friend.
- Wear your life jacket.

Of the 215 drownings that have occurred on Old Hickory Lake since impoundment in 1954, none of the

victims were wearing a life jacket. It isn't enough to just carry one on board – it should be worn. Many of these accidental drownings could have been prevented by simply wearing a life jacket.



NEW PARTNERSHIP WITH BASS-N-BUDDIES

On September 11, 2010, the Old Hickory staff partnered with Bass-N-Buddies to host a fishing rodeo for 39 children in Rockland Recreation Area on Old Hickory Lake. James and Barbara Gill started Bass-N-Buddies in 2004. Bass-N-Buddies is a six-year old, non-profit 501(c)(3) organization that was founded on the principle of providing mentoring opportunities to everyone, especially children with physical, mental and social challenges. They do this by introducing these children to outdoor activities. All services provided are completely free.

The rodeo started at 10 a.m. with three educational sessions. Park Ranger, Amy Redmond, kicked it off with a water safety program, which was followed by animal bone, fur, and track identification. The final presentation was a bait, tackle and rigging session. After the presentations, it was time to head down to the shoreline for some fishing. Poles, tackle and bait were made available to each child by Bass-N-Buddies and their sponsors. Every child had an adult close by to ensure safety and to lend a helping hand with baiting hooks, casting, untangling line and, most importantly,

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taking fish off of hooks. By the end of the day, four children had caught their first fish! Prizes were awarded for first fish, largest fish caught and most fish caught.

Bass-N-Buddies organize multiple fishing rodeos around Old Hickory Lake area each year. We are already planning to partner with them on more fishing rodeos in 2011. If you wish to obtain more information about Bass-N-Buddies, you can visit their website at www.bass-n-buddies.com.



MEET THE RESOURCE MANAGER AND PARK RANGER STAFF

Resource Manager - **Freddie Bell**

Conservation Biologist - **Crystal Tingle**

Environmental Protection Specialist - **Tim O'Connell**

Area 1 (North side of the lake from the Briley Parkway bridge at Opryland to the Indian Lake Road area in Hendersonville) - **Kathryn Wall**

Area 2 (North side of the lake from the Bayshore Drive area in Hendersonville to Bay Point Subdivision in Gallatin) - **Noel Smith**, our newest ranger, joined us from Lake Cumberland in October 2010. Noel is a graduate of Austin Peay with a degree in Biology.

Area 3 (North side of the lake from Foxland Subdivision to the Smith County Line) – **John Baird**

Area 4 (South side of the lake from the Smith County line to Cedar Creek Yacht Club in Wilson County) - **Amy Redmond**

Area 5 (South side of the lake from Tradewinds Subdivision in Wilson County to the Briley Parkway bridge at Opryland) – **Allen Earhart**

Courtney Eason is a CO-OP student from Tennessee State. She joined the Old Hickory staff in May 2010.